Version With Markings To Show Changes Made

3. (amended) A radiation source according to claim 1[or claim 2], wherein coupling occurs by an intermediary layer disposed between the first active layer and the second active layer.

5. (amended) A radiation source according to claim 3 [or claim 4], wherein the intermediary layer has a refractive index n which is less than 1, and less than or equal to the refractive index of the active layers positioned either side of the intermediary layer.

6. (amended) A radiation source according to [any of the preceding claims] claim 1, wherein the first active layer comprises a semiconductor junction.

7. (amended) A radiation source according to [any of the preceding claims] claim 1, wherein the radiation source further comprises an injection region incorporated in the first active layer, where injection of electrical carriers into the first active layer from the injection region stimulates the first active layer to emit the primary radiation.

9. (amended) A radiation source according to [any of the preceding claims] claim 1, wherein a first band gap energy is associated with the first active layer, and a second band gap energy is associated with the second active layer, the first band gap energy being much greater than the second band gap energy.

10. (amended) A radiation source according to [any of the preceding claims] claim 1, wherein the active layers satisfy the following conditions:

(1) $$hv_{max} \leq E_{subsequent} + E_f * k < E_{previous}$$

(2) $$1/\alpha_{entry} \leq d \leq 1/\alpha_{exit}$$

where hv_{max} is the maximum energy for the radiation reduced in a subsequent active layer optically connected with a previous active layer;

$E_{previous}$ is the band gap energy of the previous active layer;

$E_{subsequent}$, E_f are the band gap energy and the Fermi energy level of the active layer, respectively;

d is the thickness of the subsequent active layer;

α_{entry} and α_{exit} are the effective absorption coefficients for the radiation entering and exiting the subsequent active layer, respectively.

11. (amended) A radiation source according to [any of the preceding claims] claim 1, wherein the active layers are made of A^3B^5 material and/or its solid solutions.

14. (amended). A radiation source according to [any of the preceding claims] claim 1, wherein the first active layer and the second active layer are made from a material with a graded variation in band gap energy.

16. (amended) A radiation source according to claim[s] 14 [or 15], wherein the material with a graded variation possesses the radial symmetry of a unit cell.

17. (amended) A radiation source according to claim 15 [or 16], wherein the material with a graded variation adjoins the injection region along one edge where the material has a narrow band gap energy.

19. (amended) A radiation source according to [any of claims 3 to 5] claim 3, in which the intermediary layer comprises two bonding layers each attached to a respective active layer, and a heat sink layer interposed between the two bonding layers, the heat sink layer being operable to conduct heat away from the active layers.